

A NEW SPECIES OF TAUSCHIA FROM THE STATE OF WASHINGTON

MILDRED E. MATHIAS AND LINCOLN CONSTANCE

Tauschia Hooveri sp. nov. Herba acaulescens, pseudoscapo e tubere globose, 10–14 cm. alta, omnino glabra glauca; folia in ambitu ovato-triangularia, petiolo excluso, 3–5 cm. longa, 1–6 cm. lata, pinnata vel partim bipinnata; foliola linearia, acuminata, 15–35 mm. longa, 1–2 mm. lata, integra, callosa-apiculata, marginibus reflexis; petioli 2–3 cm. longi; pedunculi graciles, 2–4 cm. longi; calycis dentes obsoleti; corollae albae; antherae purpureae; styli breves, filiformes, recurvati; carpophorum ad medium bifidum, ramis ad apicem approximatis; fructus linear-oblongus ad apicem versus leviter attenuatus, 5–7 mm. longus, circa 2 mm. latus, glaucus, costis evidentibus filiformibus; vittae parvae solitariae in valleculis, 2 in commissura; semini facies fere plana.

Acaulescent with a pseudoscape 10–14 cm. high arising from a globose tuber; glabrous and glaucous throughout; leaves ovate-deltoid in general outline, excluding the petiole 3–5 cm. long, 4–6 cm. broad, pinnate to partially bipinnate, the leaflets linear, acuminate, 1.5–3.5 cm. long, 0.1–0.2 cm. broad, entire, callous-tipped, the margins reflexed; petioles 2–3 cm. long; peduncles slender, 2–4 cm. long; involucre and involucrel wanting; fertile rays 3–7, stout, unequal, 2–10 mm. long; pedicels 1–3 mm. long; calyx teeth obsolete; flowers white, the anthers purple; styles short, filiform, recurved; carpophore 2-cleft about one-half way to the base, the halves approximate to the tip; fruit linear-oblong, tapering slightly at apex, 5–7 mm. long, about 2 mm. broad, glaucous, the ribs filiform but evident; oil tubes small, usually solitary in the intervals, 2 on the commissure; seed face nearly plane.

Type. "Near Cowiche, Yakima County, Washington," April 20, 1942, *Robert F. Hoover 5689* (University of California Herbarium no. 671873). There is one other collection, "Hills south of White Swan, Yakima County," March 24, 1942, *Hoover 5616* (Univ. Calif. Herb.). In a letter from the collector dated November 5, 1942, the following additional information is given: "In answer to your question about the habitat of *Tauschia Hooveri*, it grows in 'scablands,' in rather barren rocky clay, with *Artemisia rigida*, *Sisyrinchium Douglasii*, *Eriogonum thymoides*, *Viola trinervata*, etc."

To the best of our knowledge, this species has never been collected before, although the Yakima area has been rather intensively botanized previously by various collectors. It undoubtedly escaped notice because the plants were in ripe fruit

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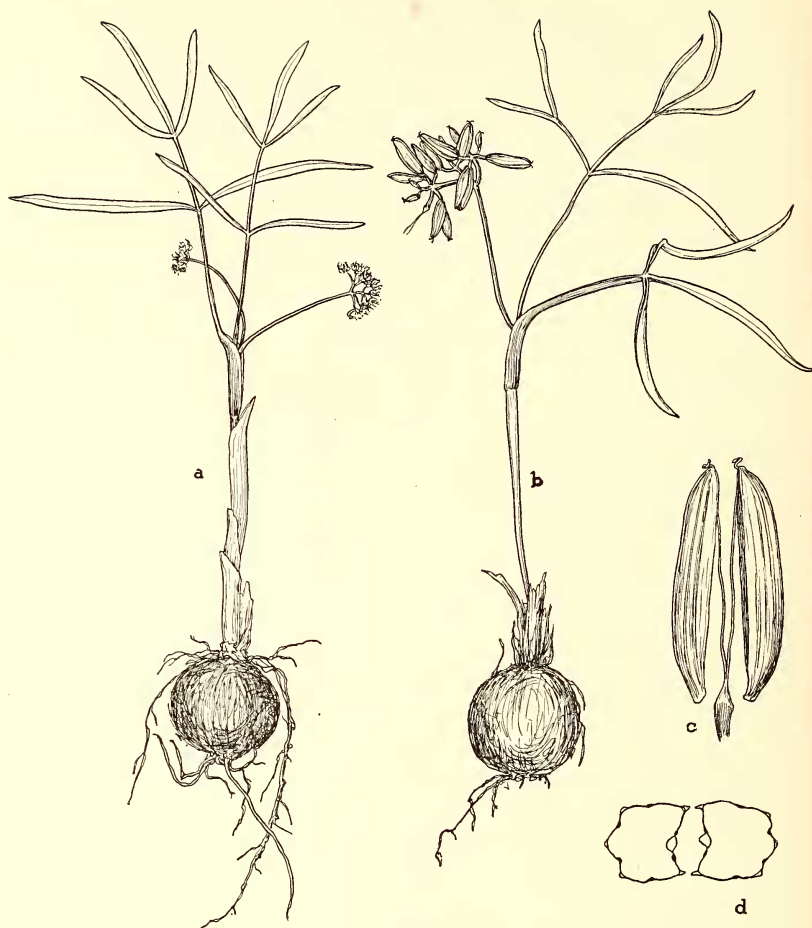


FIG. 1. *Tauschia Hooveri*: a, in anthesis, $\times 1$; b, in fruit, $\times 1$; c, side view of fruit, $\times 5$; d, cross section of fruit, $\times 10$.

before the end of April, and because in anthesis they so greatly simulate certain of the "bulbous" species of both *Lomatium* and the two species of *Orogenia*.

In a recent series of nomenclatorial transfers, the authors (Bull. Torrey Bot. Club 68: 121-124. 1941) proposed to reduce the monotypic genus *Hesperogenia* Coulter and Rose under *Tauschia* Schlecht. This step was not taken without some mis-giving inasmuch as *Hesperogenia* is known only from Mount Rainier, Washington, and the geographically nearest undoubted *Tauschia* is not known to occur north of southwestern Oregon. In addition, the suborbicular fruit of *Hesperogenia* is unique in

Tauschia, although its other characters fit the latter genus very well. The discovery of *Tauschia Hooveri*, however, ends the supposed geographical isolation of *Hesperogenia* and appears to confirm the desirability of including it under *Tauschia*.

We are glad to have the opportunity to name this remarkable species for Dr. Hoover, whose critical collections and keen observations have been invaluable to us in our work with the Umbelliferae.

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NOTES ON THE FLORA OF THE CHARLESTON
MOUNTAINS, CLARK COUNTY, NEVADA
V. CACTACEAE

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This treatment of the Cactaceae continues a series devoted to a study of the flora of the Charleston Mountains in southern Nevada and published as follows: Madroño 4: 128-130. 1937; Bull. So. Calif. Acad. Sci. 37: 1-11. 1938; *l.c.* 38: 1-7. 1939; and Madroño 6: 211-222. 1942. I wish to express my thanks to Dr. L. Benson, Dr. E. U. Clover, Mr. Fred Gibson and Dr. Ira L. Wiggins for assistance in the study of the Cactaceae of the Charleston Mountains and for specimens of and information regarding these and related species. Specimens of all of the species treated below except those of *Mammillaria tetrancistra* Engelm. have been widely distributed to the herbaria of the world. Types of the new species are all in the Clokey Herbarium now at the Bull. So. Calif. Acad. Sci. 37: 1-11. 1938; *l.c.* 38: 1-7. 1939; regarding these and related species. Specimens of all the species are in the University of California, Berkeley.

KEY TO THE GENERA OF CACTACEAE

- Stems jointed, cylindrical or flat; leaves small, subulate, deciduous; areoles on tubercles or on flat surfaces, with numerous, barbed glochids; glochids and flowers produced from the same areoles; ovaries with areoles and glochids; spines barbed or not barbed 1. *Opuntia*
- Stems not jointed, cylindrical, without leaves; areoles on ridges or tubercles, without glochids; flowers produced above the areoles; ovaries with or without areoles, without glochids; spines not barbed.
- Stems ribbed; spines borne on definite ridges.
- Flowers borne above old spine-bearing areoles, solitary, appearing lateral, purple or crimson; tube and ovary spiny; fruit colored, thin-skinned, spiny 2. *Echinocereus*
- Flowers borne above young areoles, appearing sub-terminal in a circle near the top of plant; ovary scaly; fruit green, without spines 3. *Echinocactus*
- Stems not ribbed; spines borne on tubercles arranged in rows or scattered.